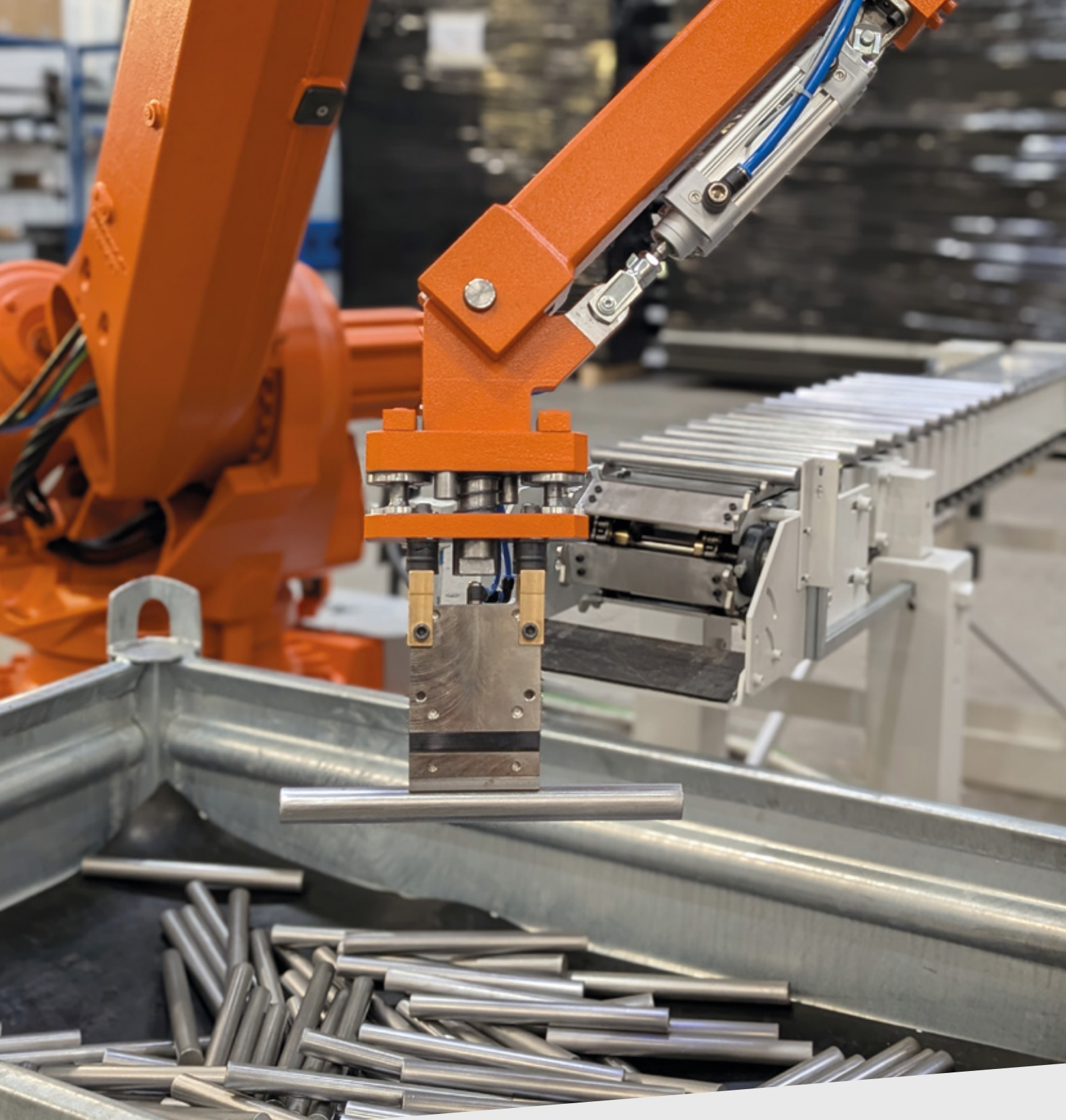




LASCO „NEXTGEN BIN PICKING“

Intelligent – flexible – fast



LASCO 'NEXTGEN BIN PICKING'

More compact, quieter, more energy-efficient, significantly more adaptable

Automated removal of chaotic stored parts from containers – also known as 'Bin-picking' – is a demanding task in industrial automation.

With 'NextGen Bin Picking', LASCO has developed a solution that makes this process reliable, efficient, and adaptable – especially for applications in forging technology.



The system

- ▶ Intelligent **3D image processing**
- ▶ **Robot path planning** specially adapted by LASCO
- ▶ Magnetic or vacuum-based gripper allows angle of **inclination of up to 45 degrees**
- ▶ **Damping elements** ensure gentle handling and effective collision protection
- ▶ **Precise gripping process** of the most accessible part in the container
- ▶ Continuous **autonomous workflow**

Compared to previously used step feeders and vibratory feeders, which mechanically separate parts and depend on uniform geometries and wear-intensive movements, LASCO „NextGen Bin Picking“ enables flexible and material-friendly handling of a wide variety of workpiece shapes. In addition, conventional conveyors require a comparatively large amount of space and generate considerable noise during operation, while „NextGen Bin Picking“ is more compact, quieter, more energy-efficient, and significantly more adaptable

At the heart of the system is the combination of a commercially available, powerful 3D camera, intelligent image processing, and robot path planning specially adapted by LASCO. Based on this, the system independently recognizes the most accessible part in the container, determines its exact position and orientation, plans the optimal path, and executes the gripping process precisely. After completing the gripping process, the system checks whether a part has actually been grasped. It then follows the optimal path, places the part down, and immediately begins the next cycle.

This creates a continuous, autonomous workflow that not only increases process reliability but also significantly reduces cycle time – depending on the application, to less than four seconds per pick.

Special importance is attached to the gripper developed by LASCO, which is available in both magnetic and vacuum-based versions. The design allows angle of inclination of up to 45 degrees and is equipped with damping element in the longitudinal direction as well as soft element for adapting to different workpiece geometries. These features ensure gentle handling and effective collision protection.

'Bin-Picking' is mainly used in processes where raw or forged parts are provided in chaotic manner – for example, in automated transfer of raw material for positioning before heating or forming processes or for transfer to downstream process steps.

With 'NextGen Bin Picking' LASCO demonstrates how automation solutions combine intelligent sensor technology and robust engineering – for economic benefits and practical implementation in everyday production.



Your advantages

- ▶ Automated removal of chaotic stored parts
- ▶ Flexible and material-friendly handling of a wide variety of workpiece shapes
- ▶ Faster, more precise and safer processing
- ▶ Improved cost efficiency
- ▶ Enhanced process reliability
- ▶ Relief of human resources
- ▶ More compact, quieter, energy-efficient and highly more adaptable
- ▶ Significantly reduced cycle time – to less than **four seconds per pick** under ideal conditions

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